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ABSTRACT

Sex-related variations in the formation of educational and occupational aspirations of fifth and ninth grade Brazilian boys and girls were assessed via comparison of their academic performance, level of occupational and educaticnal goals, and about the influence of family, peers, and teachers in shaping these goals. Data were collected on 1,950 students in four counties representing great differences in patterns of settlement and economics. The Wisconsin Model of Status Attainment (modified by inclusion of the variables sex and parents' education level and cccupation) served as a point of departure. Other variables included socioeconmic status, academic performance, and influence of others. Data indicated (1) grade level is related to occupational and educational aspiration level: (2) sex is related to occupational but not educational goal level: (3) academic performance is not related to either goal: (4) acquaintances affect educational goals positively: (5) socioeconomic level affects male occupational aspirations more than female cnes. Results suggest that the Wisconsin Model does nct fit Brazilian data well. Recommendations call for more accurate measures to approximate Latin American Social and cultural milieu, comparative analysis of societal norms defining allocation of occupational status, improved accuracy of scholastic ability indicators, and documentation of percentages of women in higher educational and occupational positions. (MN)

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A COMPARATIVE ANALYSIS OF THE FACTORS ASSOCIATED WITH CAREER ASPIRATIONS OF BRAZILIAN STUDENTS BY SEX AND GRADE LEVEL

BY

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ABSTRACT

Empirical data for the study were collected from four counties in Rio Grande do Sul in 1973. It consists of two sub-samples of 1,950 students defined by level of schooling. The Wisconsin social psychology model of status attainment was used to explore sex-related variations in the formation of educational and occupational goals of fifth and ninth grade Brazilian boys and girls. Analyses of the data were conducted by comparing the relevance of socioeconomic origin and academic performance as equally important inputs into the status attainment process. It was hypothesized that levels of aspiration vary by the students': (1) grade level, (2) sex, (3) socioeconomic origin, (4) academic performance, and (5) level of significant others' influence. While there are no clear indications as to the reason of sex-specific consequences for educational and occupational attainment in Brazil, there still appears to be some intervening variables that seem to differentiate the educational and occupational process for boys and girls.

INTRODUCTION

Although in recent years there has been increased emphases on the development of theory, and substantial additions to relevant empirical information on the career patterns of women, relatively little research has addressed itself to the application of the status attainment process to women (Sewell, 1971; Hout and Morgan, 1975). Status attainment modeling was originated for and applied to male populations within the United States, but less is known about them in other nations, particularly those classified as developing (Sewell, Haller and Portes, 1969). While the trend of the status-attainment research reflects cumulative and systematic applications across cultures (Hansen, 1975) and various subpopulations (Sewell, Haller and Ohlendorf, 1970) we still find that few special considerations for women have been adequately dealt with.[1] While several recent attempts have been made to fill this gap in knowledge, much needs to be done relative to providing insight into the multivariate nature of the phenomenon (Treiman and Terrell, 1975; Featherman and Hauser, 1976; Rosen and Aneshensel, 1978). The status attainment model has received only limited use with female populations; however, the limitations of present theory and status attainment models points to an obvious need for a continued search for sex-related variables of importance in understanding the status attainment process for women. It would appear reasonable then to reconceptualize the Wisconsin model for women with the objective of developing an appropriate status attainment model for women.

[1] For example, Falk and Cosby comment that: "Although parsimony is theoretically desirable, researchers interested in the status attainment process for women seem doomed to be frustrated by the failure to consider sex-related limitations." (Women and the Status Attainment Process, 1974.)

Purpose

In light of this state of affairs, the major objective of the present research is an assessment of sex-related variations in a causal model of the formation of educational and occupational goals of fifth and ninth grade Brazilian boys and girls. While there are no clear a priori indications as to the reason of sex-specific consequences for educational and occupational attainment in Brazil, there still appear to be some intervening variables that seem to differentiate the educational and occupational process for boys and girls. By introducing the variable of sex into the general Wisconsin model, a new model appropriate for women is possible. This will permit examination of the following factors that seem to affect academic motivation and achievement:

1. Sex-differentiated academic performance will be evaluated by a comparison of the grades of boys and girls in both the fifth and ninth grades.
2. The formation of career goals will be evaluated by a comparison of boys' and girls' level of educational aspirations and level of occupation aspirations in both the fifth and ninth grades.
3. The influence of significant others (family, peers, and teachers) will be evaluated by a comparison of the responses of boys and girls in both the fifth and ninth grades.

Theoretical Orientation

An important theoretical and methodological breakthrough in the field of social mobility, was the study of the American occupational structure, conducted by Blau and Duncan (1967). They presented a model which not only documented the association between intergenerational statuses but also hypothesized a process of status transmission. Building on this research, there have been several attempts to specify further the intervening mechanisms between parental and offspring statuses. One of the more popular of the contemporary social psychological models is the "Wisconsin Model". The Wisconsin model will be used as a point of departure in this study, since it is perhaps the most parsimonious and most comprehensive of all social psychological models of status attainment.

The model, which is reproduced in Table 1, hypothesizes a number of causal relationships among eight variables which lend themselves to testing through path analysis. The model indicates that mental ability and socioeconomic background are the two basic variables explaining individual attainments. Socioeconomic background represents the advantages and disadvantages which parents pass on to their children. It is a status ascribed to offspring at birth.

This revision of the model will involve inclusion of the sex variable as well as an expansion of the SES variable to include both mother's and father's education and occupation. Given the relative importance of mother and father as significant others during the socialization, it is plausible to expect differential influence and that what influence there is will be in part determined by mother's and father's educations and occupations.

Table 1: Distribution of Sample by Grade Level, Sex and County[4]

	Grade Level											
	Fifth						Ninth					
	Male		Female		Total		Male		Female		Total	
County	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Butia	153	55.8	121	44.2	274	100.0	115	52.8	103	47.2	218	100.0
Carozinho	118	45.7	140	54.3	258	100.0	121	51.5	114	48.5	235	100.0
Alegrete	117	49.8	118	50.2	235	100.0	110	46.2	128	53.9	238	100.0
Pelotas	128	50.2	127	49.8	255	100.0	153	64.6	84	35.4	237	100.0
Total	516	50.5	506	49.5	1022	100.0	499	53.8	429	46.2	928	100.0

[4]Excerpted from Hansen (1975)

The reconceptualized model will also take into account the role that other various significant-others (such as teachers and peers) play in encouraging and modeling behaviors appropriate for the formation of educational occupational aspirations. Again it seems plausible to expect differential influence due to the substantive impact that significant-others influence and status aspirations have upon educational and occupational achievements (Haller and Portes, 1973).

This study will provide a longitudinal data base on stratification and education in Brazil, and a point of comparison for similar studies in the United States. Although there is a worldwide trend toward increasing the amount of education and the equalization of educational opportunity, neither in the United States nor in most countries has the expansion of opportunities per se removed social class differences in educational attainment. Instead there has been a filtering down process whereby educational demand is satiated in the upper social strata before there is a great increase in compulsory school attendance by working-class or lower-SES children.

Turner postulated that the most crucial factors defining accepted models of upward mobility in a given system are the organizing folk norms. "As organizing norms, these principles are assumed to be present, at least implicitly, in people's thinking, guiding their judgments of what is appropriate and inappropriate on many specific matters" (Turner, 1968). Hansen suggests that Brazilian mobility norms more closely approximate those of Turner's "sponsored" type. This results from "cultural norms which dictate the appropriateness of recruitment to elite status in Britain and Brazil and emanate from estate stratification systems" (Hanson, 1976). If norms favor the allocation of education to males, then significant others are likely to reflect them in interaction with students.

A clarification of the factors influencing educational and occupational opportunities could ultimately lead to a reduction of the inequalities of opportunity extent in Brazil's stratification system and thereby help to more fully utilize the latent "talent loss" that exists in the uneducated lower strata.

Hypotheses

The basis assumptions underlying this study are the following:

1. Socioeconomic origins and individual performance are important determinants of aspirations and attainments of United States youth;
2. Females are probably more handicapped in the aspiration and education process than males which at least partially due to differences in the sociali ation of boys and girls into different sex roles.
3. The differences are likely to be more clearly identifiable in developing countries and reflected in the relative importance of ascribed and achieved statuses in determining aspirations and achievement.
4. The norms governing aspiration and attainment are likely to be enforced by individuals occupying status positions important to youth.

Referring to the relationships that must exist for the revised Sewell et. al. model to fit the data of this sample the following null hypothese are advanced:

1: There will be no significant cultural differences in level of access to certain educational and occupational roles for boys and girls in Brazil.

2: Significant others' influence and academic performance have no effects on the aspiration levels of boys and girls.

3: Significant others' will not be likely to encourage boys to aspire to higher levels than girls when holding constantly family origin and mental ability, simply because of culturally defined sex differences.

4: Family orgin has no effect on significant others' influence.

5: Mental ability and academic performance have important effects on significant others influence.

6: The effects of significant others' influence on boys and girls is not increased at higher grade levels.

7: The effects of significant others' influence on boys is not greater than that of girls at either the fifth or ninth grade levels.

The Variables

1. Socioeconomic status refers to the position of the respondent's family in a generalized status hierarchy. Specific indicators used to measure status include: father's education, occupation and income, and a level of living index. A composite status index was built by summing standardized scores for the status indicators for each subject.

a. Father's education was measured by the number of years of formal schooling completed by the respondent's father. These were collapsed into categories with incremental scores for each level of schooling completed.

b. Father's occupation was measured by coding the title of the occupation or respondent's father onto an index of occupational status used by Havighurst and Gouveia (1969). The scale varied from 0 to 6.

c. Father's income was measured by a 10 interval scale which represented categories of monthly monetary income. It varied from 0 to 10,000+.

d. Level of living was measured by an index of eleven items representing four different aspects of consumption originally proposed by Saraiva. They are:

i. construction of the house

ii. sanitary facilities

iii. material possessions in the house

iv. access to services provided by others

Index scores for each individual consist of the sum of standardized scores for each of the eleven items.

2. Academic performance refers to the quality of student performance in the classroom. It was measured by teacher evaluations of the student in the three disciplines of mathematics, language and science. An average was computed for grades received the previous year in the three academic areas. The grades for the previous year were provided by the school secretariat.

3. Significant others' influence represents feedback received by the student from others relative to his probabilities for success in educational endeavors. It was measured using a four item index consisting of perceived encouragement received from father, mother and teacher to continue studies, and the educational plans of best friends. As was the case for other indices, standardized scores for each item were summed for each student to obtain an overall index score.

4. Level of Educational Aspiration refers to the student's own appraisal of how far he/she will progress in the formal education system. It is a measure of realistic expectations. Response to the question of whether he/she thought he/she would be able to continue his/her studies were coded no-0; maybe-1; yes-2.

5. Level of Occupational Aspiration refers to the status of the occupation the individual realistically expects to attain in later life. The question used to measure this variable queried the student on the occupation he/she would probably follow in later life. Titles of occupation to which the student aspired were coded using the scale of occupational status used to rate father's occupation.

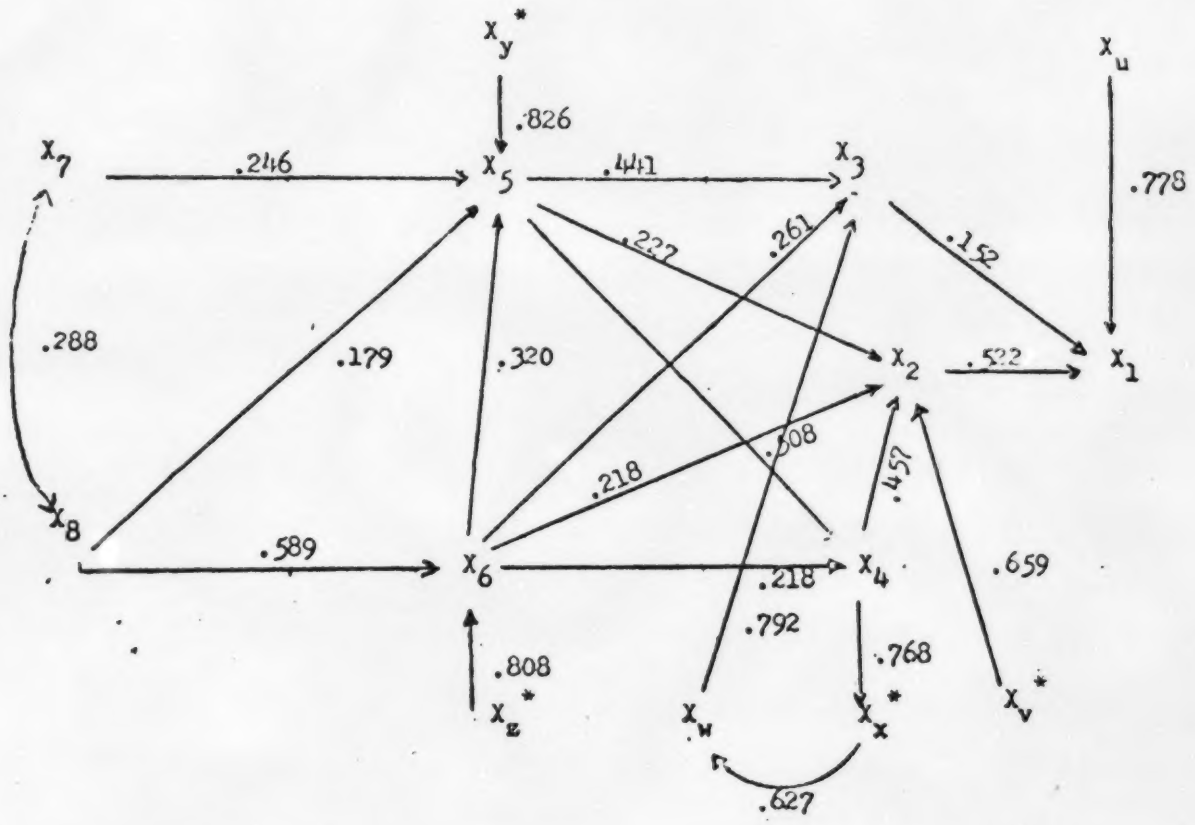
6. Sex refers to the biological and social categorization of individuals as either males or females. It was measured by a self-assignment by respondents to one of these categories.

Reliability measures for each of the variables were of two types. Where summated indexes were used, an alpha coefficient of their internal consistency was computed (Bohrnstadt, 1969). Stability estimates were based on the correlation of responses to individual questions at two different periods - the initial questionnaire and application and the post-test. These coefficients are presented in Table 2. In all cases, except for level of occupational aspiration, the stability estimates are higher for the ninth grade sub sample. This is to be expected since the older students probably took more care in filling out the questionnaires. The information measures such as those on educational attainment of parents, sex, and so forth, are more stable than the social psychological measures. This, too, is in agreement with previous

Table 2 : Reliability Estimates for Variables in Study by Grade Level and Total

Variables	Grade Level: Fifth		Ninth		Total	
	α	$r_{t_1 t_2}$	α	$r_{t_1 t_2}$	α	$r_{t_1 t_2}$
(1) Socioeconomic Status Index	--	--	--	--	.77	.79
a. Father's Education	--	.89	--	.97	--	.93
b. Father's Occupation	--	.52	--	.56	--	.54
c. Father's Income	--	.68	--	.84	--	.76
d. Level of Living	--	--	--	--	.85	
(2) Academic Performance	--	1.00	--	1.00	--	1.00
(3) Significant Others' Influence Index		.30		.61	.62	.41
a. Father's Encouragement	--	.37	--	.59	--	.42
b. Mother's Encouragement	--	.29	--	.53	--	.37
c. Teacher's Encouragement	--	.07	--	.55	--	.22
d. Friend's Plans	--	.25	--	.53	--	.45
(4) Level of Educational Aspiration	--	.37	--	.45	--	.40
(5) Level of Occupational Aspiration	--	.57	--	.29	--	.46
(6) Sex	--	.96	--	1.00	--	.98

Figure 1: Path Coefficients For Antecedents of Educational and Occupational Attainment with Revised Model For Total Sample[1]



X_1 Occupational Attainment

X_2 Educational Attainment

X_3 Level of Occupational Aspiration

X_4 Level of Educational Aspiration

X_5 Significant Others' Influence

X_6 Academic Performance

X_7 Socioeconomic Status

X_8 Mental Ability

[1] Paths marked with an asterisk are residual

research experience. Van Esland Wilkning (1970) have shown that this pattern of response stability is characteristic of most survey research conducted in Brazil. Although the social psychological measures are lower than they ideally should be in practice, it simply means that associations between variables in the study will probably be underestimated. Thus, tests of significance will be more conservative in that there is a greater probability of accepting the null hypothesis when it is in fact it should be rejected. The three measures of internal consistency follow the same pattern. The significant others influence index which respresents summed responses to subjective questions is less consistent than the other two which are based on factual information.

Methodology

The original study (Hansen, 1975) was based on the sample of 1,950 students at two grade levels enrolled in schools in four counties in Rio Grande do Sul, Brazil. The counties were selected to maximize variation in the level of access to educational facilities while at the same time controlling for levels urbanization and industrialization. Since the intent of the original study was to examine the effect of differential access on schooling processes, the selected study counties exhibited great differences in their patterns of settlement and economies.

Sample Designs

The fifth and ninth grades were selected as target populations for the sample in order to assure a great deal of variation in student socioeconomic background and levels of aspiration. As many as 60% of the Brazilian student body drop out prior to terminating the third grade and only a privileged minority actually continue beyond the fifth grade. Ideally, the study should

have included a younger cohort but data gathering resources were limited and the lack of existing methodologies to gather the required information from younger children led to a decision to focus attention upon the fifth and ninth grades.

Sampling:

Purposive samples were drawn in three of the four counties. A census of fifth and ninth graders was taken in Butia. Although, ideally, it would have been best to have taken random samples from each of the other three counties, such sampling would have required the expenditure of resources which were not available in the research budget. Six criteria were used in selecting the samples. Four of them were previously used by Havighurst and Gouneis (1969) in their national study of middle level schools. They are: (1) the sex composition of the school; (2) the curriculum offered by the schools (academic, normal, and industrial); (3) the time of classes (day versus evening); and (4) the funding source of the schools (private versus public). Two additional criteria were established by the project, namely (5) the socioeconomic composition of the student bodies and (6) the school location (urban versus rural). Schools were selected with the assistance of local school administrators so as to maximize the existing variation on each of them.

The accuracy of within county samples was evaluated by Hansen (1975). His analysis indicated them to be highly representative of the selected counties with minor deviations occurring from the census in sex distributions, school curriculum and school location. The first two were probably caused by the decision to include technical, industrial and agricultural schools in the sample if they were present in a county. Proportionately, they service

a small portion of the student body and most of them are males. The last discrepancy can be explained by the fact that many rural schools have less than five students attending fifth grade. They were excluded from the sample because of the additional costs associated with interviewing them. Most of the larger fifth grade classes were in the urban centers.

Table 1 presents the sample distributions by grade level and sex for each of the four counties. They approximate one another for sex although there was a slight oversampling of males at the ninth grade level in Pelotas. The total sample of fifth graders consists of 516 males and 506 females while that of ninth graders consists of 499 males and 429 females. Only 103 ninth grade females were sampled in Butia, but this is explained by the fact that there were only that number in school in 1973.

FINDINGS

The results of the statistical analysis are summarized in Table 3. Presented below are the major findings for each of the hypothesized relationships.

Grade Level. Grade level was found to be significantly related to levels of educational and occupational aspirations. In both tests, ninth graders tended to have higher aspirations than fifth graders. However, the relationship was stronger for occupational aspirations than for educational aspirations.

Sex. Sex was significantly related to level of aspirations for the total sample and for each grade level. Chi-square values show that sex was significantly related to level of occupational aspirations but not level of educational aspirations, for both total sample and for each grade level. In each instance, higher aspirations were observed for males than females.

Socio-Economic Status

Several tests were conducted which looked at the relationship between

socioeconomic status and aspirational levels. In all cases but one, socio-economic status was significantly related to aspirational levels. The relationship was positive which means that as socioeconomic status became higher, aspirational levels tended to increase as well. The exception was observed for level of educational aspiration for fifth grade male students. As possible explanation may be that male children have a lower of academic maturation than female children of this age. This might be characterized by negative attitudes toward school.

Academic Performance

Academic achievement level, as measured by academic performance was not found to be significantly related to educational and occupational aspirations. This finding suggests that one's origin - an ascribed status in a Brazilian setting - is a more important determinant of aspiration levels than achieved statuses, due to norms governing social mobility processes which are primarily ascribed and reinforced by inequalities of opportunity.

Significant Others' Influence

Results indicated that, in all cases, by grade level and sex, significant others' influence was positively related to levels of educational aspirations. When level of occupational aspiration was examined, the test results were mixed.

In summary, the analysis showed that the higher the grade level, the higher the levels of educational and occupational aspirations. This same trend held for socioeconomic status, the higher the aspiration levels. However, significant others' influence which is a measure of educational and occupational encouragement, showed a different trend for females. Finally, academic performance was found to be not significantly related to the aspiration variables.

Table 3: Summary of Statistics Used to Test Formal Hypotheses

	Total Sample		By Grade Level				By Sex and Grade Level							
							Fifth Grade				Ninth Grade			
			5th Grade		9th Grade		Male		Female		Male		Female	
Associations	X^2	Tau	X^2	Tau	X^2	Tau	X^2	Tau	X^2	Tau	X^2	Tau	X^2	Tau
LEVEL X LEA	7.58	.064												
LEVEL X LOA	68.25	.196												
SEX X LEA	3.19	.042	1.21	.037	2.41	.054								
SEX X LOA	45.89	.163	20.70	.153	20.44	.158								
SES X LEA	73.10	.189	10.61	.101	71.84	.269	2.34	.068	10.65	.138	32.91	.249	38.91	.249
SES X LOA	94.37	.248	33.51	.190	35.30	.221	19.66	.218	12.12	.147	22.73	.236	15.49	.211
AP X LEA	0.10	.024	1.35	.039	0.06	.010	0.36	.031	0.69	.042	0.08	.017	0.00	.009
AP X LOA	2.44	.038	0.81	.032	2.70	.059	3.35	.091	0.01	.009	2.20	.073	0.34	.035
SOI X LEA	90.58	.219	36.46	.193	56.47	.238	13.75	.171	22.37	.215	31.76	.259	17.28	.208
SOI X LOA	18.12	.103	1.85	.047	12.71	.125	0.46	.036	1.63	.065	4.53	.103	8.60	.155

* Significant at $p \leq .05$ level ($p \leq .0000$)

LEVEL - Grade Level

SEX - Sex

SES - Socioeconomic Status

AP - Academic Performance

SOI - Significant Others' Influence

LEA - Level of Educational Aspiration

LOA - Level of Occupational Aspiration

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DISCUSSION

The Wisconsin Model

Status attainment processes in Brazil are apparently governed more by ascription factors than by achievement factors. Hansen (1976) suggests that Brazilian mobility norms more closely approximate those of Turner's (1960) "sponsored" mobility system. When this interpretation is applied, several major distinctions emerge in the status attainment process as implied in the Wisconsin model, and they are for the most part related to antecedents of educational attainment.

The first divergence has to do with family origin. The data support previously stated observations concerning Brazil's cultural norms governing access to educational and occupational statuses. The differential access to these statuses are culturally defined by statuses ascribed to individuals at birth.

In Brazil, parental status has traditionally determined the status of progeny. Of course, it is chance that determines if a child is born rich or poor, and either male or female. Family origin status was found to be the most important factor in determining levels of student aspirations.

Socioeconomic status was found to exercise significant effects on aspirations for both girls and boys; however, its effects on level of occupational aspiration are greater for boys than for girls. However, the effects of socioeconomic status on level of educational aspiration were greater for girls than for boys. First, these findings appear to support the contention that ascribed statuses, such as socioeconomic status and sex, are probably the principal determinants of levels of educational and occupational achievements of Brazilian fifth and ninth grade boys and girls, while achieved statuses, such as academic performance, are not.

Second, the findings could possibly suggest that boys are more directed and encouraged toward occupational achievement while females are less encouraged to achieve high status positions.

Currently, due to rapid changes in the economy and a corresponding need for middle level educated personnel in an industrializing country, government policy and programs have expanded educational opportunities for the masses. Increasingly, education has become the principal vehicle for social mobility for lower and middle classes.

Both females and males have more opportunities for specialized training in business, technical careers, skilled industrial work; in general, for middle-level positions in the occupational sphere. However, the populace apparently still perceives education as the privilege of the higher classes.

In Brazil, traditional folk norms and values may be more resistant to change due to cultural lag. This concept may be illustrated by the lag which developed in this century between the rapidly increasing potentialities of the automobile on one hand, and the design and construction of adequate highways. It is thus a type of maladjustment that eventually will be overcome by cultural adaptation. Nevertheless, family origin and sex still appear to be the two most important ascribed statuses governing the allocation of educational and occupational roles in Brazil.

Academic Performance

The second divergence in the status attainment processes of Brazil and the United States, as implied in the Wisconsin model, has to do with the unimportance of academic performance in determining levels of aspiration. This divergence may be due in part to the relative unimportance of academic performance if it is assumed that achievement factors are irrelevant in the Brazilian schooling process. Another possible explanation is the adequacy

of the measurement devices may be questioned if grades are not an accurate evaluation of school performance.

The first interpretation can be accepted if substantive findings on achievement/ascription factors hold. But if the problem is found to be based in the invalidity of the measures, very little can be said at this time.

As previously stated, the data in this study reveal that academic performance was not significantly related to educational or occupational aspirations by grade level or sex. This finding is compatible with the current arguments of Latin American educators who suggests that teachers define academic performance in accordance with class based factors that have their bases rooted in prevaling cultural norms. In other words, teachers apparently reward students with higher grades on the basis of socioeconomic characteristics such as dress, speech, cleanliness, and manners. If this line of reasoning is correct, then even if the measures for academic performance are invalid, the evidence would point to the importance of ascriptive factors. This notion ties in quite well with the argument presented earlier, that differential access to positions within the educational and occupational spheres of Brazil's stratification system are culturally defined by statuses ascribed to individuals at birth, most notably those of family origin and sex.

The effects of socioeconomic status and of significant other's influence on educational aspirations significantly increased for both boys and girls at the ninth grade level. This suggests that students become more realistic in setting their goals as they mature and the expectations of significant others increase as ability is demonstrated. All factors, however, have less influence than socioeconomic status upon aspiration levels.

As previously mentioned, levels of occupational aspiration were not significantly associated with significant others' influence except in the case of ninth grade females. It was suggested that this unexpected finding might reflect greater encouragement for females, since it is more critical for a female be "qualified" than a male in order to gain access to certain educational and occupational positions. However, differences in cultural definitions of who has access to occupational roles seem likely to be greater in Brazil. These differences may also affect aspirations and significant other's encouragement.

Thus, as prevailing cultural norms "catch up" with Brazil's rapidly changing business and educational infrastructures, due to the industrialization and modernization, one would hypothesize the present differentiation in sex roles to break down. Accordingly, we can predict that females will increasingly aspire to, and attain such occupations as lawyers, university professors, doctors, and other traditionally male dominated occupations.

Conclusions

Substantively, the findings suggest several major conclusions when reviewed in light of existing theory of stratification. For the most part, they support the hypotheses stated earlier.

First, it is apparent that the Wisconsin Model as formulated by Sewell and his associates does not fit these Brazilian data well. The most obvious difference is that academic performance does not have a substantial effect on aspirations while socioeconomic status does.

Second, ascribed statuses, such as socioeconomic status and sex, are probably the principal determinants of levels of educational and occupational achievements of Brazilian fifth and ninth grade boys and girls, while achieved statuses, such as academic performance, are not.

Third, several variations in the effects of socioeconomic origin, grade level, sex, and significant others' influence on aspirations are indicated by the data. In general, as socioeconomic status became higher, aspiration levels increased. Grade level was also positively related to aspiration levels. This may reflect that as maturation occurs, aspiration levels tend to become more formalized. Level of occupational aspiration was most important for males while level of educational aspiration was most significant for females. The importance of significant others' influence was documented for both sexes.

Several factors emerge from this study as important problem areas that could be noted for future cross-cultural status attainment research.

One of the most important research considerations is the need for developing more accurate social psychological measures that will closely approximate the social situation and cultural milieu of Latin America. This would permit empirical equivalence between measures cross-culturally and would thereby increase the validity and reliability of the research in both a statistical and theoretical sense.

Secondly, a comparative analysis is needed in the sociological investigation of societal norms defining the process of allocating educational and occupational statuses, not only in Brazil but in other developing countries. This is not to say that the study of structural changes is not highly important, but the results of this analysis support the idea of the importance of societal norms. Their effects on mobility processes may be just as important as more traditional methods of explaining status attainment processes in less industralized countries.

Thirdly, further research is needed in improving the accuracy of academic performance as a reliable indicator of students' actual scholastic abilities.

There is a need to document the exact criteria used by teachers in awarding grades for classroom performance. Participant observation and the use of questionnaires might be used for this documentation.

Finally, future studies could concentrate on the documentation of the percentage of women holding higher and more prestigious educational and occupational positions in developing countries. Rates could be compared in the time sequence studies, thus not only yielding a clearer picture of the country's stratification system but also of their folk norms.

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